



May 13, 2021

VIA ELECTRONIC MAIL

Pandelis “Lee” Xanthakos
DESC Transmission

Re: Modification - Wateree and Williams Retirement

Mr. Xanthakos,

As part of the Integrated Resource Planning process, as referenced in the DESC Modified 2020 IRP Short-term Action Plan, and in accordance with SC PSC Order No. 2020-832 (see pp. 34-40), DESC will be evaluating the retirement of several facilities. This letter is the third (second modification) following an original dated February 16, 2021 and a modification requested on April 6, 2021. The modifications to the previous requests are necessary to meet the pace of implementation required by the order. Resource Planning and Power Generation have focused the analysis request into fewer but more informative set of cases. Wateree Station (“Wateree”) has two generating units, super-critical once-through steam units fired with bituminous coal with a combined net winter rating of 684 MW. These units have operated each year since 1970 and is located on the Wateree River outside of Eastover, SC. A.M. Williams Station (“Williams”) has one generating unit, a super-critical once-through steam unit fired with bituminous coal with a net winter rating of 610 MW. Williams is owned by a Dominion Energy affiliate—South Carolina Generating Company (“GENCO”). GENCO sells DESC the total capacity and energy output from Williams under a Unit Power Sales Agreement approved by the Federal Energy Regulatory Commission. The Williams unit has been operating since 1974 in the Bushy Park industrial area between the Back and Cooper Rivers in Goose Creek, SC.

Depending upon which path is more feasible, the two Wateree units may be retired before Williams or simultaneously with Williams. Normally, changes with large generators would occur incrementally, but with an emphasis on near-term greenhouse gas emission reductions and the required spending on effluent control for continued compliance at these coal-fired facilities, the previous Wateree retirement transmission impact analysis request is being augmented to include Williams. The Company desires to contemplate the coincident retirement of both Wateree and Williams facilities.

Consistent with FERC Order No. 717, which permits the sharing of transmission information to facilitate long range and integrated resource planning of generation and transmission, DESC Resource Planning is asking DESC Transmission to quantify the effects of removing these plants from service. Results as provided in a Transmission Impact Analysis (“TIA”) should indicate the characteristics needed of transmission modifications or replacement generation if results show that a direct replacement is needed. The assessment of the impact to the transmission system is one part of an inter-disciplinary group of analyses which will be referred to

as the “Retirement Study”. Although the physical and financial impacts cannot be exactly known in advance, DESC planning efforts and resource plans should be supported by the best available estimates and forecasts. Economically affected and reliability impacted areas of study will include transmission, community impact, environmental impacts, and resource adequacy. DESC Resource Planning will coordinate the overall effort and cost/benefit study, as well as holding responsibility for resource adequacy, reserve margin calculations, reliability, and system cost/resource optimization studies. DESC Power Generation will plan for the community impact including employee relations and will develop plans and costs for demolition, site restoration and any site re-use, and develop plans and costs for DE-owned replacement projects. The DE Environmental Department will study and report on environmental impact/benefits, areas of continuing compliance, and closure costs with special attention toward ash ponds and ash landfills.

The Retirement Study anchored by the results of the TIA is just the first step in a comprehensive resource evaluation process. The TIA should show if the electrical impact of the retirement is technically achievable and identify transmission cost estimates at the retirement site as well as upgrades at the replacement capacity study sites. The Retirement Study has a limited scope in that the results of the TIA, environmental impact, community impact, and closure costs are inputs regulatory process and resource optimization.

The TIA seeks to evaluate the impact of five cases involving the retirement of Wateree and Williams Stations. Case 1 assumes the retirements are three years apart beginning in late 2025. In Cases 2, 3, 4 and 5, Wateree and Williams are both retired at the end of the year 2028. DESC Resource Planning has been operating under the assumption that the retirement of Wateree prior to Williams could be more efficient due to the older vintage of the Wateree units, their relatively lower efficiency, lower capacity factor, generally higher operating costs, and the transmission support functions that Williams is presumed to provide to the DESC Southern transmission system and the Charleston metro area. Please confirm or dispute this assumption that from a Transmission Planning standpoint, the role of Williams in transmission system support is greater than Wateree and that a retirement of Williams will require more mitigation (in the form of new transmission assets or locally-sited replacement generation assets) than a retirement of Wateree.

Please study these Wateree (684 MW winter) and Williams (610 MW winter) retirement cases:

Case 1 – Retire Wateree in 2025; add a 200 MW battery Energy Storage System (“ESS”) and 200 MW PV solar generation at Wateree, and contract for 200 MW off-system purchased power beginning late in 2025. Retire Williams in 2028 and add a 534 MW 1X1 CC at Jasper and add a 200MW ESS and 200 MW PV solar generation at Canadys.

Wateree (684 MW) is retired late in 2025 and replacement resources are available immediately. Build a utility-owned or PPA-provided 200 MW-AC dispatchable ESS facility and a 200 MW-AC utility-owned or PPA-provided flexible PV solar generator at the Wateree site and the Company's existing 230 kV interconnection. DESC would also enter a 3-year PPA for 200 MW of off-system capacity-backed energy on a firm path from the SOCO interface. Retire Williams late in 2028 and replacement generation is available immediately. A 534 MW 1X1 CC with a 6,200 BTU/kWh heat rate and minimum up and down time of sixteen hours is constructed and interconnected at the DESC Jasper site with the existing unit to the Company's 230 kV transmission system. These combined-cycle generation blocks have a minimum load of 281 MW. Build a utility-owned or PPA-provided 200 MW-AC dispatchable ESS facility and a 200 MW-AC utility-owned or PPA-provided flexible PV solar generator at the Canadys site and interconnection.

Case 2 – Retire Wateree and Williams in 2028; build a 1X1 CC and pair of frame-built CTs at Jasper

Wateree and Williams are retired simultaneously in 2028 and replacement generation is available immediately. A 534 MW 1X1 CC with a 6,200 BTU/kWh heat rate and minimum up and down time of sixteen hours is constructed and interconnected at the DESC Jasper Station site to the Company's 230 KV transmission system. These combined-cycle generation blocks have a minimum load of 281 MW. A 523 MW 2X0 pair of frame built CTs is constructed and interconnected at the DESC Jasper Station site to the Company's 230 KV transmission system.

Case 3 – Retire Wateree and Williams in 2028; build a 1X1 CC and pair of frame-built CTs at Canadys

Wateree and Williams are retired simultaneously in 2028 and replacement generation is available immediately. A 534 MW 1X1 CC with a 6,200 BTU/kWh heat rate and minimum up and down time of sixteen hours is constructed and interconnected at the former DESC Canadys Station site to the Company's 230 KV transmission system. These combined-cycle generation blocks have a minimum load of 281 MW. A 523 MW 2X0 pair of frame built CTs is constructed and interconnected at the former DESC Canadys Station site to the Company's 230 KV transmission system.

Case 4 – Retire Wateree and Williams in 2028; build a 1X1 CC at Canadys, add a 200 MW ESS and 200 MW PV solar generation at Wateree, and contract for 400 MW off-system purchased power

Wateree and Williams are retired simultaneously in 2028 and replacement resources are available immediately. A 534 MW 1X1 CC with a 6,200 BTU/kWh heat rate and minimum up and down time of sixteen hours is constructed and interconnected at the former DESC Canadys Station site to the Company's 230 KV transmission system. Build a utility-owned or contract for 200 MW-AC dispatchable ESS facility and a 200 MW-AC utility-owned or PPA-provided flexible and dispatchable PV solar generator at the Wateree site. DESC would enter a 10-year PPA for 400 MW of off-system capacity-backed energy on a firm path from the SOCO interface beginning late in 2028.

Case 5 – Retire Wateree and Williams in 2028; contract for an 1,100 MW off-system long-term power purchase

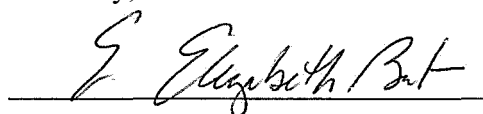
Wateree and Williams are retired simultaneously in 2028 and a replacement PPA is available immediately. DESC would enter a 10-year PPA for 1,100 MW of off-system capacity-backed energy on a firm path from the SOCO interface or SOCO and DUKE interfaces beginning late in 2028.

CT Options for Williams– If the analysis in any of the above defined cases determines that some replacement generation must be sited at the Williams Station site to maintain system reliability or to economically overcome transmission system contingencies, please add 117 MW winter rating dual-fuel aeroderivative CTs, incrementally, as needed. If it can be determined that 117 MW units could significantly reduce the transmission upgrade cost for the cases above, please identify the transmission cost savings per MW of generation replaced at the Williams Station site.

Since the information and any cost estimates will be used in the Retirement Study and subsequent evaluation of alternative forms of replacement generation in the Resource Planning and IRP processes, the decommissioning costs should be differentiated from commissioning costs, and assigned by site as much as possible. We understand that this limited analysis is informational and that the interconnection of any future generation (new or replacement) must occur in accordance with the appropriate OATT provisions.

DESC Power Generation is excited about progressing this important analysis to transform our generating fleet in furtherance of our corporate Net Zero goals and the desires of the environmental community and other stakeholders, while balancing the long-term interests of our customers for reliability, resiliency, and affordability. This study process is in furtherance of Dominion’s stated goal to become one of the most sustainable companies in the United States and is a top priority for Dominion Energy South Carolina. We look forward to meeting with you to discuss the necessary technical details for you to conduct the analysis.

Sincerely,



E. Elizabeth (“Betty”) Best
Director of Strategic Planning